

## Claims

1. A composition comprising one or more carotenoids, and one or more of the following substances: vitamins, minerals, amino acids, lipids, peptides, nucleotides  
5 and/or polysaccharides.
2. A composition as claimed in claim 1, further comprising an aqueous diluent, wherein the composition is in the liquid state.
- 10 3. A composition as claimed in claim 1 or 2, wherein one or more of the components of the composition are water soluble.
4. A composition as claimed in any of the preceding claims, wherein one or more of the components of the composition is/are fat soluble.  
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5. A composition as claimed in any of claims 2, wherein the fat soluble components are in the form of micelles.
6. A composition as claimed in any of the preceding claims, wherein the  
20 composition comprises one or more water soluble vitamins and one or more fat soluble vitamins.
7. A composition as claimed in any one of the preceding claims, wherein the composition comprises one or more water soluble carotenoids and one or more fat  
25 soluble carotenoids.
8. A composition as claimed in any one of the preceding claims, wherein the composition comprises one or more water soluble amino acids and one or more fat soluble amino acids.  
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9. A composition as claimed in any one of the preceding claims, wherein the composition comprises one or more water soluble minerals and one or more fat soluble minerals.

10. A composition as claimed in any one of the preceding claims, wherein the composition comprises one or more water soluble peptides and one or more fat soluble peptides.

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11. A composition as claimed in any one of the preceding claims, wherein the composition comprises one or more water soluble nucleic acids and one or more fat soluble nucleic acids.

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12. A composition as claimed in any of the preceding claims, wherein the composition comprises an oil.

13. A composition as claimed in any one of the preceding claims, wherein the composition comprises water soluble 1, 3  $\beta$ -glucan or 1,6  $\beta$ -glucan.

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14. A composition as claimed in any of the preceding claims, further comprising cellulose, gum and or a sugar derivative.

15. A composition as claimed in any of the preceding claims, further comprising an emulsifier, preferably Polysorbate 80.

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16. A composition as claimed in any of the preceding claims, further comprising a stabilising agent, preferably monopropylene glycol.

17. A composition as claimed in any of the preceding claims, further comprising a preservative, preferably phosphoric acid and/or potassium sorbate.

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18. A composition as claimed in any of the preceding claims, further comprising an antioxidant other than a carotenoid, preferably ascorbyl polyphosphate and/or butylated hydroxy-toluene.

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19. A composition as claimed in any of the preceding claims, further comprising particulate material.

20. A composition as claimed in any of the preceding claims, further comprising enzymes capable of altering the surface structure of feed.
- 5 21. A composition as claimed in any of the preceding claims, wherein the inclusion of one or more carotenoid is optional.
22. A composition for enriching the diet of a captive species, wherein the composition is as claimed in any one of claims 1-21.
- 10 23. A composition as claimed in claim 22, wherein the captive species are fish, preferably farmed fish, ornamental fish, or aquarium fish.
24. A composition as claimed in claim 22 or 23, wherein the composition is  
15 incorporated in feed.
25. A method for the enrichment of feed, comprising soaking the feed in a composition as claimed in any one of claims 1-22.
- 20 26. A method as claimed in claim 25, wherein the feed is defrosting or defrosted.
27. A method as claimed in claim 25, wherein the feed is soaked in the composition prior to freezing.
- 25 28. A method for the enrichment of feed, comprising spraying the feed with a composition as claimed in any one of claims 1-21.
29. A method for the enrichment of feed, comprising the addition of the composition as claimed in any one of claims 1-21 before or during the production  
30 of processed feed.
30. A method for enrichment of feed, comprising the injection of the composition as claimed in any one of claims 1-21 into the feed.

31. A method for enrichment of feed, comprising adding the composition as claimed in any one of claims 1-21 to the environment or diet of live feed.
- 5 32. A method for maintaining or restoring skin colour in an animal by the administration of the composition as claimed in any of claims 1-21 to the animal directly or through the enrichment of the feed of the animal.
- 10 33. A kit for enriching feed comprising the composition claimed in any of claims 1-21.
34. A kit as claimed in claim 33, further comprising enzymes capable of altering the surface structure of feed and/or feed.
- 15 35. A kit as claimed in claim 33 or 34, further comprising a vacuum or pressure device.
36. A feed comprising a composition as claimed in any of claims 1-21.
- 20 37. A composition substantially as hereinbefore described.
38. A feed substantially as hereinbefore described.
39. A kit substantially as hereinbefore described.